

Chemical Engineering Journal 82 (2001) 361

Chemical Engineering Journal

www.elsevier.com/locate/cej

Author Index of Volume 82

Finney, W.C. 189	Lieto, J. 143	Satrio, J.A.B. 43
Forzatti, P. 57	Livbjerg, H. 219	Schultz, T. 117
Froment, G.F. 281	Locke, B.R. 189	Senkan, S. 3
		Sharma, A.K. 189
Galarraga, C. 13	Marin, G.B. 267	Soares, R.R. 21
Garayhi, A.R. 329	Masuda, T. 173	Specchia, V. 73
Gracia, F. 291	Matsuda, S. 183	Sundmacher, K. 117
Groppi, G. 57	Matsuda, T. 173	
Grymonpré, D.R. 189	Mezzogori, R. 33	Taghizadeh, M. 143
Gulati, S. 149	Miracca, I. 259	Tayakout-Fayolle, M. 143
	Mukai, S.R. 173	Tesser, R. 347
Hashimoto, K. 173	Mukasyan, A.S. 303	Thiers, L. 303
Hatano, H. 183		Topsøe, H. 219
Heck, R.M. 149	Nijemeisland, M. 231	Trifirò, F. 33
Hou, K. 311	Noronha, F.B. 21	Trimis, D. 73
Huang, S. 87		Tronconi, E. 57
Hughes, R. 311	Pelekh, A. 303	Tsotsis, T.T. 157
	Peluso, E. 13	Tsutsumi, A. 183
Ibashi, W. 57	Pigamo, A. 33	130(30)111, 74. 103
Ismagilov, Z.R. 355	Podyacheva, O.Yu. 355	D . IM 242
	Pushkarev, V.V. 355	van Baten, J.M. 247
Jallut, C. 143		Varma, A. 303
Johannessen, T. 219	Qin, W. 157	Vayenas, C.G. 109
		Veringa, H. 355
Keil, F.J. 329	Resasco, D.E. 21	
Koryabkina, N.A. 355	Rodemerck, U. 3	Wauters, S. 267
Krishna, R. 247	Rodrigues, A.E. 95	Wolf, D. 3
Kushino, T. 173		Wolf, E.E. 291
	Santacesaria, E. 347	
Larsen, J.H. 219	Saracco, G. 73	Yoshida, Si. 173
	Forzatti, P. 57 Froment, G.F. 281 Galarraga, C. 13 Garayhi, A.R. 329 Gracia, F. 291 Groppi, G. 57 Grymonpré, D.R. 189 Gulati, S. 149 Hashimoto, K. 173 Hatano, H. 183 Heck, R.M. 149 Hou, K. 311 Huang, S. 87 Hughes, R. 311 Ibashi, W. 57 Ismagilov, Z.R. 355 Jallut, C. 143 Johannessen, T. 219 Keil, F.J. 329 Koryabkina, N.A. 355 Krishna, R. 247 Kushino, T. 173	Forzatti, P. 57 Froment, G.F. 281 Galarraga, C. 13 Garayhi, A.R. 329 Gracia, F. 291 Groppi, G. 57 Gymonpré, D.R. 189 Hashimoto, K. 173 Hatano, H. 183 Heck, R.M. 149 Hou, K. 311 Huang, S. 87 Hughes, R. 311 Ibashi, W. 57 Ismagilov, Z.R. 355 Jallut, C. 143 Johannessen, T. 219 Keil, F.J. 329 Koryabkina, N.A. 355 Krishna, R. 247 Kushino, T. 173 Marin, G.B. 267 Masuda, T. 173 Matsuda, T. 173 Mezzogori, R. 33 Mezzogori, R. 33 Miracca, I. 259 Mukai, S.R. 173 Mukasyan, A.S. 303 Miracca, I. 259 Mukai, S.R. 173 Mukasyan, A.S. 303 Peluso, E. 13 Pelekh, A. 303 Peluso, E. 13 Pigamo, A. 33 Podyacheva, O.Yu. 355 Pushkarev, V.V. 355 Rodemerck, U. 3 Rodrigues, A.E. 95 Kantacesaria, E. 347





Chemical Engineering Journal 82 (2001) 363-366

Chemical Engineering Journal

www.elsevier.com/locate/cej

Subject Index of Volume 82

Absorption

Electrochemical chlorine absorption in cyclone membrane reactor: analysis of reaction mechanism and transport phenomena, 117

Advanced oxidation technologies

Degradation kinetics of 2,4-D in water employing hydrogen peroxide and UV radiation, 209

Agglomerate

Ultrafine particle fluidization and its application to photocatalytic NO_x treatment, 183

Aqueous phase

The role of Fenton's reaction in aqueous phase pulsed streamer corona reactors 189

Baffles

The staging in fluidised bed reactors: from CSTR to plug-flow, 259

Production of benzaldehyde: a case study in a possible industrial application of phase-transfer catalysis, 43

Binding energy

Correlation between catalytic activity and support reducibility in the CO_2 reforming of methane over $Pt/Ce_zZr_{1-z}O_2$ catalysts, 21

Calladium catalysts

Structured reactors for kinetic measurements in catalytic combustion, 57

Catalysis

Production of benzaldehyde: a case study in a possible industrial application of phase-transfer catalysis, 43

Catalyst

CO₂ reforming of methane over Pt/Ce₂Zr₁₋₂O₂ catalysts, 21

Catalyst dynamics: consequences for classical kinetic descriptions of reactors, 219

Catalytic applications

The application of monoliths for gas phase catalytic reactions, 149 Catalytic combustion

Structured reactors for kinetic measurements in catalytic combustion, 57

Improved-performance knitted fibre mats as supports for pre-mixed natural gas catalytic combustion, 73

Catalytic heat exchanging reactor

A catalytic heat-exchanging tubular reactor for combining of high temperature exothermic and endothermic reactions, 355

Chemical and physical properties

The application of monoliths for gas phase catalytic reactions, 149

Chemical reaction

Non-isothermal gas-liquid absorption with chemical reaction studies.

Temperature measurements of a spherical laminar film surface and comparison with a model for the CO₂/NaOH system, 143

Chemical recycle

Chemical recycling of mixture of waste plastics using a new reactor system with stirred heat medium particles in steam atmosphere, 173

Chlorin

Electrochemical chlorine absorption in cyclone membrane reactor: analysis of reaction mechanism and transport phenomena, 117

Coke formation

Computer generation of a network of elementary steps for coke formation during the thermal cracking of hydrocarbons, 267

Combinatorial catalysis

High-throughput synthesis and screening of catalytic materials. Case study on the search for a low-temperature catalyst for the oxidation of low-concentration propane, 3

Combustion

Modeling of microkinetics in heterogeneous catalysis by means of frequency response techniques, 329

Combustion modelling

Improved-performance knitted fibre mats as supports for pre-mixed natural gas catalytic combustion, 73

Computational fluid dynamics

Catalyst dynamics: consequences for classical kinetic descriptions of reactors, 219

Comparison of CFD simulations to experiment for convective heat transfer in a gas-solid fixed bed, 231

Continuous gas recycle reactor separator

Partial oxidation of methane to formaldehyde with 50% yield in a continuous recycle reactor separator (CRRS), 109

Crystallite size effects

Monte Carlo simulations of the effect of crystallite size on the activity of a supported catalyst, 291

Cyclone flow reactor

Electrochemical chlorine absorption in cyclone membrane reactor: analysis of reaction mechanism and transport phenomena, 117

Degradation

Degradation kinetics of 2,4-D in water employing hydrogen peroxide and UV radiation, 209

2,4-Dichlorophenoxyacetic acid

Degradation kinetics of 2,4-D in water employing hydrogen peroxide and UV radiation, 209

Direct oxidation

Production of benzaldehyde: a case study in a possible industrial application of phase-transfer catalysis, 43

DRM

Fundamental and environmental aspects of landfill gas utilization for power generation, 157

mamic

Catalyst dynamics: consequences for classical kinetic descriptions of reactors, 219

Effective diffusivity

The effect of pore blockage on the diffusivity in ZSM5: a percolation approach, 281

Effective medium approximation

The effect of pore blockage on the diffusivity in ZSM5: a percolation approach, 281

Eggshell catalyst

Eggshell catalysts for Fischer-Tropsch synthesis. Modeling catalyst impregnation, 13

Electrochemical reaction

Electrochemical chlorine absorption in cyclone membrane reactor: analysis of reaction mechanism and transport phenomena, 117

Eulerian simulation model

Using CFD for scaling up gas-solid bubbling fluidised bed reactors with Geldart A powders, 247

Evolutionary strategy

High-throughput synthesis and screening of catalytic materials. Case study on the search for a low-temperature catalyst for the oxidation of low-concentration propane, 3

Fenton's reaction

The role of Fenton's reaction in aqueous phase pulsed streamer corona reactors, 189

Fischer-Tropsch synthesis

Eggshell catalysts for Fischer-Tropsch synthesis. Modeling catalyst impregnation, 13

Fixed bed reactor

Comparison of CFD simulations to experiment for convective heat transfer in a gas-solid fixed bed, 231

Flowrate

Partial oxidation of methane to formaldehyde with 50% yield in a continuous recycle reactor separator (CRRS), 109

Fluidised bed reactors

Using CFD for scaling up gas-solid bubbling fluidised bed reactors with Geldart A powders, 247

The staging in fluidised bed reactors: from CSTR to plug-flow, 259 Frequency response

Modeling of microkinetics in heterogeneous catalysis by means of frequency response techniques, 329

Fructose

Design methodology and operation of a simulated moving bed reactor for the inversion of sucrose and glucose-fructose separation, 95 Fuels

Chemical recycling of mixture of waste plastics using a new reactor system with stirred heat medium particles in steam atmosphere, 173

Gas density

Influence of the ejector configuration, scale and the gas density on the mass transfer characteristics of gas-liquid ejectors, 131

Gas phase reactions

The application of monoliths for gas phase catalytic reactions, 149 Gas-liquid

Non-isothermal gas-liquid absorption with chemical reaction studies.

Temperature measurements of a spherical laminar film surface and comparison with a model for the CO₂/NaOH system, 143

Gas-liquid ejectors

Influence of the ejector configuration, scale and the gas density on the mass transfer characteristics of gas-liquid ejectors, 131

Gas-solid bubbling

Using CFD for scaling up gas-solid bubbling fluidised bed reactors with Geldart A powders, 247

Genetic algorithm for optimization

High-throughput synthesis and screening of catalytic materials. Case study on the search for a low-temperature catalyst for the oxidation of low-concentration propane, 3

Glucose

Design methodology and operation of a simulated moving bed reactor for the inversion of sucrose and glucose–fructose separation, 95

Glucose fermentation

A kinetic and mass transfer model to simulate the growth of baker's yeast in industrial bioreactors, 347

GRI 2.11 chemical kinetic mechanism

Fundamental and environmental aspects of landfill gas utilization for power generation, 157

Heat transfer

Non-isothermal gas-liquid absorption with chemical reaction studies.

Temperature measurements of a spherical laminar film surface and comparison with a model for the CO₂/NaOH system, 143

Heat transfer mechanism

Comparison of CFD simulations to experiment for convective heat transfer in a gas-solid fixed bed, 231

Heterogeneous catalysis

Modeling of microkinetics in heterogeneous catalysis by means of frequency response techniques, 329

Heterogeneous catalysts

High-throughput synthesis and screening of catalytic materials. Case study on the search for a low-temperature catalyst for the oxidation of low-concentration propane, 3

High-throughput screening

High-throughput synthesis and screening of catalytic materials. Case study on the search for a low-temperature catalyst for the oxidation of low-concentration propane, 3

Hydrogen peroxide

Degradation kinetics of 2,4-D in water employing hydrogen peroxide and UV radiation, 209

Impregnation

Eggshell catalysts for Fischer-Tropsch synthesis. Modeling catalyst impregnation, 13

Industrial fed-batch bioreactors

A kinetic and mass transfer model to simulate the growth of baker's yeast in industrial bioreactors, 347

Intrinsic kinetics

The kinetics of methane steam reforming over a Ni/ α -Al $_2$ O catalyst, 311 Iron catalyst

Chemical recycling of mixture of waste plastics using a new reactor system with stirred heat medium particles in steam atmosphere, 173

Isobutane

Improved catalytic performance of Keggin-type polyoxometalates in the oxidation of isobutane to methacrylic acid under hydrocarbonlean conditions using antimony-doped catalysts, 33

Keggin structure

Improved catalytic performance of Keggin-type polyoxometalates in the oxidation of isobutane to methacrylic acid under hydrocarbonlean conditions using antimony-doped catalysts, 33

Kinetic measurements

Structured reactors for kinetic measurements in catalytic combustion, 57

Kinetics

Catalyst dynamics: consequences for classical kinetic descriptions of reactors, 219

LaMnO3 perovskite

Improved-performance knitted fibre mats as supports for pre-mixed natural gas catalytic combustion, 73

Landfill gas

Fundamental and environmental aspects of landfill gas utilization for power generation, 157

Mass transfer

Non-isothermal gas-liquid absorption with chemical reaction studies.

Temperature measurements of a spherical laminar film surface and comparison with a model for the CO₂/NaOH system, 143

Membrane reactor

Electrochemical chlorine absorption in cyclone membrane reactor: analysis of reaction mechanism and transport phenomena, 117 Methacrylic acid

Improved catalytic performance of Keggin-type polyoxometalates in the oxidation of isobutane to methacrylic acid under hydrocarbonlean conditions using antimony-doped catalysts, 33

Methane combustion

A catalytic heat-exchanging tubular reactor for combining of high temperature exothermic and endothermic reactions, 355

Methane steam reforming

The kinetics of methane steam reforming over a Ni α -Al $_2$ O catalyst, 311

A catalytic heat-exchanging tubular reactor for combining of high temperature exothermic and endothermic reactions, 355

MgO

Improved-performance knitted fibre mats as supports for pre-mixed natural gas catalytic combustion, 73

Mikrokinetics

Electrochemical chlorine absorption in cyclone membrane reactor: analysis of reaction mechanism and transport phenomena, 117

Modeling of microkinetics in heterogeneous catalysis by means of frequency response techniques, 329

Mixture of waste plastics

Chemical recycling of mixture of waste plastics using a new reactor system with stirred heat medium particles in steam atmosphere, 173

Modelling

Non-isothermal gas-liquid absorption with chemical reaction studies.

Temperature measurements of a spherical laminar film surface and comparison with a model for the CO₂/NaOH system, 143

Monoliths

The application of monoliths for gas phase

The application of monoliths for gas phase catalytic reactions, 149 Monte Carlo

Monte Carlo simulations of the effect of crystallite size on the activity of a supported catalyst, 291

Nanoparticle

Ultrafine particle fluidization and its application to photocatalytic NO_x treatment, 183

Network generation

Computer generation of a network of elementary steps for coke formation during the thermal cracking of hydrocarbons, 267

Nickel catalyst

The kinetics of methane steam reforming over a Ni/ α -Al₂O catalyst, 311 NO.

Ultrafine particle fluidization and its application to photocatalytic NO_x treatment, 183

Nonisothermal

Kinetics of high-temperature reaction in titanium-nitrogen system: nonisothermal conditions, 303

Partial oxidation

Partial oxidation of methane to formaldehyde with 50% yield in a continuous recycle reactor separator (CRRS), 109

Per pass conversion

A simple adsorber dynamics approach to simulated countercurrent moving bed reactor performance, 87

Percolation

The effect of pore blockage on the diffusivity in ZSM5: a percolation approach, 281

Phase transfer catalysis

Production of benzaldehyde: a case study in a possible industrial application of phase-transfer catalysis, 43

Photocatalyst

Ultrafine particle fluidization and its application to photocatalytic NO_x treatment, 183

Plug-flow

The staging in fluidised bed reactors: from CSTR to plug-flow, 259

Polyoxometalate

Improved catalytic performance of Keggin-type polyoxometalates in the oxidation of isobutane to methacrylic acid under hydrocarbonlean conditions using antimony-doped catalysts, 33

Porous media

Improved-performance knitted fibre mats as supports for pre-mixed natural gas catalytic combustion, 73

Pseudo-continuum model

The effect of pore blockage on the diffusivity in ZSM5: a percolation approach, 281

Reaction kinetics

Degradation kinetics of 2,4-D in water employing hydrogen peroxide and UV radiation, 209

Reaction network

Computer generation of a network of elementary steps for coke formation during the thermal cracking of hydrocarbons, 267

Reactor

Catalyst dynamics: consequences for classical kinetic descriptions of reactors, 219

Reactor performance

A simple adsorber dynamics approach to simulated countercurrent moving bed reactor performance, 87

Reactor system

Chemical recycling of mixture of waste plastics using a new reactor system with stirred heat medium particles in steam atmosphere, 173

Saccharomyces cerevisia

A kinetic and mass transfer model to simulate the growth of baker's yeast in industrial bioreactors, 347

SCMCR

A simple adsorber dynamics approach to simulated countercurrent moving bed reactor performance, 87

Self-ignition

Kinetics of high-temperature reaction in titanium-nitrogen system: nonisothermal conditions, 303

Simulated moving bed reactor

Streamer corona reactors

Design methodology and operation of a simulated moving bed reactor for the inversion of sucrose and glucose-fructose separation, 95

The role of Fenton's reaction in aqueous phase pulsed streamer corona reactors. 189

Structured catalysts

Structured reactors for kinetic measurements in catalytic combustion, 57 Sucrose inversion

Design methodology and operation of a simulated moving bed reactor for the inversion of sucrose and glucose-fructose separation, 95

Sulphur poisoning

Improved-performance knitted fibre mats as supports for pre-mixed natural gas catalytic combustion, 73

Temperature measurement

Non-isothermal gas-liquid absorption with chemical reaction studies.

Temperature measurements of a spherical laminar film surface and comparison with a model for the CO₂/NaOH system, 143

Temporal analysis of products

Modeling of microkinetics in heterogeneous catalysis by means of frequency response techniques, 329

Thermal cracking of hydrocarbons

Computer generation of a network of elementary steps for coke formation during the thermal cracking of hydrocarbons, 267

Titanium-nitrogen system

Kinetics of high-temperature reaction in titanium-nitrogen system: nonisothermal conditions, 303

Iltrafine particle

Ultrafine particle fluidization and its application to photocatalytic NO_x treatment, 183

Ultraviolet radiation

Degradation kinetics of 2,4-D in water employing hydrogen peroxide and UV radiation, 209

Venturi reactors

Influence of the ejector configuration, scale and the gas density on the mass transfer characteristics of gas-liquid ejectors, 131

X-ray photoelectron spectroscopy

Correlation between catalytic activity and support reducibility in the CO_2 reforming of methane over $Pt/Ce_xZr_{1-x}O_2$ catalysts, 21

Zeolite catalyst

Chemical recycling of mixture of waste plastics using a new reactor system with stirred heat medium particles in steam atmosphere, 173

